

PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q67666

Stefaan Jozef DE CNODDER, et al.

Appln. No.: 10/026,690

Group Art Unit: 2619

Confirmation No.: 9306

Examiner: Anthony M SOL

Filed: December 27, 2001

For: MARKER DEVICE AND RELATED METHOD

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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I. REAL PARTY IN INTEREST

The real party of interest in this appeal is ALCATEL. Assignment of the application was submitted in the U.S. Patent and Trademark Office on February 12, 2002, and recorded on the same date at Reel 012576, Frame 0939.

II. RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in the pending Appeal.

III. STATUS OF CLAIMS

Claims 1-16 are all the claims pending in the application and the subject of this appeal. Claims 1-3, 5-10, and 12-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Troxel (U.S. Patent No. 6,147,970) in view of Wang et al. (U.S. Patent No. 6,748,435, hereafter “Wang”). Claims 4 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Troxel in view of Wang and further in view of Chang et al. (U.S. patent No. 5,367,523, hereafter “Chang”).

IV. STATUS OF AMENDMENTS

No claim amendments were requested subsequent to the November 15, 2008 Final Office Action.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a marking determining method for determining a packet marking of packets of an incoming packet-flow in order to keep said packets in conformance with a traffic policy (for example, page 2), the determining being based on an actual value of a traffic reservation parameter (for example, page 2, lines 9-23), the traffic reservation parameter being a measure of available network resources dedicated to packets of said incoming packet-flow having a pre-assigned priority (for example, page 2, lines 9-23), the determining further being based on the pre-assigned priority of the packets of the incoming packet flow (for example, page 2, lines 9-23), the traffic reservation parameter having a predetermined minimum and a maximum value (for example, page 2, lines 9-23), the marking determining method comprising holding a threshold value for the traffic reservation parameter, said threshold value lying between the minimum and said maximum value of said traffic reservation parameter (for example, page 2, lines 9-23); metering the actual value of the traffic reservation parameter (for example, page 2, lines 9-23 and page 4, line 16 to page 5, line 3); and if the actual value of said traffic reservation parameter exceeds the threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on said actual value of said traffic reservation parameter (for example, page 5, line 17 to page 6, line 28), and if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet (for example, page 5, line 17 to page 6, line 28).

Independent claim 8 is directed to a marking determining device, for determining a packet marking of packets of an incoming packet-flow, in order to keep said packets in conformance with a traffic policy (for example, page 2) the determining being based on an actual value of a traffic reservation parameter (for example, page 2, lines 9-23), the traffic reservation parameter being a measure of available network resources dedicated to packets of the incoming packet-flow having a pre-assigned priority (for example, page 2, lines 9-23), the determining further being based on the pre-assigned priority of said packets of said incoming packet flow (for example, page 2, lines 9-23), the traffic reservation parameter having a predetermined minimum and a maximum value (for example, page 2, lines 9-23), the marking determining device comprising a threshold holding part (for example, THHP), adapted to hold a threshold value for the traffic reservation parameter, the threshold value lying between the minimum and maximum value of the traffic reservation parameter (for example, page 2, lines 9-23); a metering part (for example MEP), adapted to check on the actual value of said traffic reservation parameter (for example, page 2, lines 9-23 and page 4, line 16 to page 5, line 3); and a determination part (for example, DETP), adapted to, if the actual value of the traffic reservation parameter exceeds the threshold value for the traffic reservation parameter, determine the packet marking of and mark each of the packets based on the actual value of the traffic reservation parameter (for example, page 5, line 17 to page 6, line 28), and if the actual value of the traffic reservation parameter is below the threshold value for the traffic reservation parameter, determine the packet marking of and mark each of the packets based on a pre-assigned priority of the packet (for example, page 5, line 17 to page 6, line 28).

Independent claim 16 is directed to a marking determining method for determining a packet marking of packets of an incoming packet-flow in order to keep said packets in conformance with a traffic policy (for example, page 2), the marking determining method comprising providing a threshold value for a traffic reservation parameter (for example, page 5, lines 4-22), the threshold value lying between a minimum value and a maximum value of the traffic reservation parameter (for example, page 4, lines 16-23); metering an actual value of the traffic reservation parameter (for example, page 4, line 16 to page 5, line 28); and if the actual value of the traffic reservation parameter exceeds the threshold value of the traffic reservation parameter, marking the packets only based on the actual value of the traffic reservation parameter (for example, page 5, line 17 to page 6, line 28), and if the actual value of the traffic reservation parameter is below the threshold value of the traffic reservation parameter, marking the packets based on a pre-assigned priority of the packet (for example, page 5, line 17 to page 6, line 28).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- I. Rejection of claims 1-3, 5-10, and 12-16 under 35 U.S.C. § 103(a) as being unpatentable over Troxel in view of Wang et al.
- II. Rejection of claims 4 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Troxel in view of Wang and further in view of Chang et al.

VII. ARGUMENT

Appellant respectfully submits that claims 1, 8, and 16 are not rendered obvious over Troxel in view of Wang, because the cited references do not teach or suggest all of the features of the claims.

Disclosure of Troxel

Troxel generally relates to a system for optimizing data flow through a node in a network system (column 2, lines 46-53). Messages forwarded to a node have at least two priorities - a normal priority and a high priority (the Abstract). Token buckets, which include normal and high priority levels reserve capacity for high priority bursts of data (column 2, lines 55-65). A normal priority threshold value is associated with a token counter, and if messages with a high priority arrive at a node, it is marked non-conforming (not protected against loss) if the token counter is below the number of tokens required for passing the message (column 2, lines 61-66). These messages are either dropped or passed on for more policing processing or sent out of the node with appropriate tagging (column 3, lines 5-8).

Disclosure of Wang

Wang generally relates to a marking system in which arriving packets are forwarded without changing the marking, promoted to a higher priority marking, or demoted to a lower priority marking based upon the relative difference in token filing rate “r” and token consumption rate of packets from an upstream to a downstream domain (column 5, line 47 to column 6, line 12). During the demotion of packets, the traffic condition marker keeps the number of demoted packets approximately proportional to the number of green (highest priority) packets (column 6, lines 1-35). Similarly during promotion, the traffic condition marker keeps

the number of promoted packets approximately proportional to the number of yellow packets (column 6, lines 30-55).

Analysis

Independent claim 1 and analogous independent claims 8 and 16 recite in part:

if said actual value of said traffic reservation parameter exceeds said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on said actual value of said traffic reservation parameter, and if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet.

According to this aspect of the claims, the pre-assigned priority is not taken into account for the determination of the marking if the actual value of the traffic reservation parameter exceeds the threshold value for the traffic reservation parameter.

Appellant respectfully submits that at least this aspect of the claims is neither taught nor suggested by the cited references. The Examiner appears to read this feature of the claims on the disclosure in column 20, lines 46-51 of Troxel. However, this cited portion of Troxel merely discloses a two-stage policing method that occurs when traffic arrives at a first state 88. A token counter 90 is updated by a token rate, and has a normal threshold value 94 associated with it. High priority packets are compared to the direct value of the token counter based on the number of tokens required to pass the packets, and low priority packets are similarly compared to the value of the token counter minus the normal priority threshold value 94. When either packet is below the compared value, it is marked as non-conforming (column 20, lines 52-55), and may be dropped.

Accordingly, Troxel merely drops packets if they are below the direct value of the token counter. The disclosure of Troxel clearly suggests that for low priority packets, the packets are marked non-conforming based on the token value, and not based on a pre-assigned priority, as recited by the claims. More specifically, either type [meaning high or low priority packets], if they are below the threshold, are marked non-conforming. Thus, Troxel cannot take into account a previously assigned priority in this instance.

Therefore, Appellant respectfully submits that Troxel does not teach or suggest that if the actual value of the traffic reservation parameter exceeds the threshold value for said traffic reservation parameter, determining the packet marking of and marking each of said packets based on the actual value of the traffic reservation parameter, and if the actual value of the traffic reservation parameter is below the threshold value for the traffic reservation parameter, determining the packet marking of and marking each of the packets based on a pre-assigned priority of the packet, as required by the claims.

For these reasons, Appellant respectfully submits that the Examiner § 103 rejection of claims 1, 8 and 16 is improper, and respectfully submits that the rejection of claims 1-16 should be reversed.

Unless a check is submitted herewith for the fee required under 37 C.F.R. §41.37(a) and 1.17(c), please charge said fee to Deposit Account No. 19-4880.

Appeal Brief Under 37 C.F.R. § 41.37
U.S. Application No.: 10/026,690

Attorney Docket No. Q67666

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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CLAIMS APPENDIX

CLAIMS 1-16 ON APPEAL:

1. (previously presented): A marking determining method, for determining a packet marking of packets of an incoming packet-flow, in order to keep said packets in conformance with a traffic policy,

said determining being based on an actual value of a traffic reservation parameter, said traffic reservation parameter being a measure of available network resources dedicated to packets of said incoming packet-flow having a pre-assigned priority,

said determining further being based on said pre-assigned priority of said packets of said incoming packet flow, said traffic reservation parameter having a predetermined minimum and a maximum value,

said marking determining method comprising:

holding a threshold value for said traffic reservation parameter, said threshold value lying between said minimum and said maximum value of said traffic reservation parameter;

metering said actual value of said traffic reservation parameter; and

if said actual value of said traffic reservation parameter exceeds said threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on said actual value of said traffic reservation parameter, and if said actual value of said traffic reservation parameter is below said

threshold value for said traffic reservation parameter, determining said packet marking of and marking each of said packets based on a pre-assigned priority of the packet.

2. (previously presented): The marking determining method according to claim 1, wherein said determination of packet marking additionally is based on at least one additional pre-assigned priority for each said packet of said incoming packet-flow, each said additional pre-assigned priority having a separate threshold value assigned to said traffic reservation parameter.

3. (previously presented): The marking determining method according to claim 1, wherein said traffic reservation parameter is the filling level of a token bucket.

4. (previously presented): The marking determining method according to claim 1, wherein said traffic reservation parameter is a sending rate estimate.

5. (previously presented): The marking determining method according to claim 1, wherein said pre-assigned priority and/or said additional pre-assigned priority is a packet loss priority.

6. (previously presented): The marking determining method according to claim 1, wherein said pre-assigned priority and/or said additional pre-assigned priority is a packet traffic category.

7. (previously presented): The marking determining method according to claim 1, wherein said pre-assigned priority and/or said additional pre-assigned priority is a type of sender.

8. (previously presented): The marking determining device, for determining a packet marking of packets of an incoming packet-flow, in order to keep said packets in conformance with a traffic policy,

said determining being based on an actual value of a traffic reservation parameter, said traffic reservation parameter being a measure of available network resources dedicated to packets of said incoming packet-flow having a pre-assigned priority,

said determining further being based on said pre-assigned priority of said packets of said incoming packet flow, said traffic reservation parameter having a predetermined minimum and a maximum value,

said marking determining device comprising:

a threshold holding part (THHP), adapted to hold a threshold value for said traffic reservation parameter, said threshold value lying between said minimum and said maximum value of said traffic reservation parameter;

a metering part (MEP), adapted to check on said actual value of said traffic reservation parameter; and

a determination part (DETP), adapted to, if said actual value of said traffic reservation parameter exceeds said threshold value for the traffic reservation parameter, determine said packet marking of and mark each of said packets based on said actual value of said traffic reservation parameter, and if said actual value of said traffic reservation parameter is below said threshold value for said traffic reservation parameter, determine said packet marking of and mark each of said packets based on a pre-assigned priority of the packet.

9. (previously presented): The marking determining device according to claim 8, wherein said determination packet marking additionally is based on at least one additional pre-assigned priority for each said packet of said incoming packet-flow, each said additional pre-assigned priority having a separate threshold value assigned to each of said traffic reservation parameter.

10. (previously presented): The marking determining device according to claim 8, wherein said traffic reservation parameter is a filling level of a token bucket.

11. (previously presented): The marking determining device according to claim 8, wherein said traffic reservation parameter is a sending rate estimate.

12. (previously presented): The marking determining device according to claim 8, wherein said pre-assigned priority and/or said additional pre-assigned priority is a packet loss priority.

13. (previously presented): The marking determining device according to claim 8, wherein said pre-assigned priority and/or said additional pre-assigned priority is a packet traffic category.

14. (previously presented): The marking determining device according to claim 8, wherein said pre-assigned priority and/or said additional pre-assigned priority is a type of sender.

15. (previously presented): A communication network element including the marking determination device as claimed in claim 8.

16. (previously presented): A marking determining method for determining a packet marking of packets of an incoming packet-flow in order to keep said packets in conformance with a traffic policy, the marking determining method comprising:

providing a threshold value for a traffic reservation parameter, said threshold value lying between a minimum value and a maximum value of the traffic reservation parameter;

metering an actual value of the traffic reservation parameter; and

if the actual value of the traffic reservation parameter exceeds the threshold value of the traffic reservation parameter, marking the packets only based on the actual value of the traffic reservation parameter, and

if the actual value of the traffic reservation parameter is below the threshold value of the traffic reservation parameter, marking the packets based on a pre-assigned priority of the packet.

Appeal Brief Under 37 C.F.R. § 41.37
U.S. Application No.: 10/026,690

Attorney Docket No. Q67666

EVIDENCE APPENDIX:

There has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other similar evidence.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

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SUBMISSION OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The statutory fee of \$510.00 is being charged to Deposit Account No. 19-4880 via EFS Payment Screen. The USPTO is also directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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